

DR. BLAKE MAKES CLEAR MYSTERY OF WIRELESS

Ohio State University Professor Gives Lecture At The Chautauqua

ETHER HAS BECOME ONE CONCERT AUDITORIUM

Radio Fans and Bugs Of Mt. Vernon Keenly Interested In Demonstration

All over the United States today, the air is throbbing with the songs of famous soloists, with instrumental music played by concert orchestras, with lectures, sermons, news bulletins, business information, market reports, weather forecasts and political speeches. The ether has become one vast auditorium giving selection of every variety of entertainment. And all that is necessary to make the silence speak to one is to have one of the magic radio receiving sets that are the sensation of the age.

Prof. Frederic C. Blake of Ohio State University discussed the radio in a popular, entertaining and instructive way at the Saturday afternoon session of the Chautauqua. He had for an audience one of the largest crowds that has attended any afternoon session.

In the large audience were a goodly number of radio fans or bugs—and Mt. Vernon has a very respectable number of them. They were eager to hear and to have the last word in the new science which in the past year has seen a phenomenal growth.

Dr. Blake brought to Mt. Vernon a General Electric receiving set that is the last word in scientific construction, and the big tent was fitted with aerial wires. The demonstration given proved to be, on the whole more than commonly satisfactory at this season of the year. This is the season when the air is full of static or atmospheric electricity. More than frequently it is sufficient to handicap and even to prevent such demonstrations such as Dr. Blake purposed giving.

Before demonstrating Dr. Blake spoke of the advancements that have been made in radio telephony. He told of the experiments made by the Westinghouse Co. and the Western Electric Co., that latter a subsidiary of the Bell Telephone Co., in developing the radio business until it now is a business involving millions and producing millions.

After dwelling upon the scientific construction of the radio-telephone, Dr. Blake explained how wireless speech is made possible. Everybody whose fancy is caught by the magic of radio, and every purchaser of a radio set, want first to visualize just what is happening in the sending and receiving sets to make the miracle of wireless speech possible. If one plunges a stick vertically into a sheet of still water, at regular intervals a series of small waves will start from the stick and gradually widen in circles across the water until they diminish in size and disappear. The radio telephone transmits speech by starting similar waves in the air.

The human voice is produced by vibrations of the cords of the throat. These vibrations, varying in frequency from 4,000 to 10,000 vibrations a second, set up sound waves in the air. Now if these waves are changed into electric vibrations instead of sound vibrations, they can be sent broadcast over great distances in much the same way that the water waves traveled on the water's surface.

These sound waves are easily converted into electrical waves by a small device called the vacuum tube. This tube, when the sound vibrations will be added to the normal vibrations of the tube, and the ether or air waves will vary with the sound vibrations. Once the sounds have been thus converted into electric waves some method must be adopted to convert the electric waves back into sound waves, so that the person listening at the phones will have the words translated in the sender's own voice. This is accomplished by devices almost identical with those of the sending station, except that the instruments are in reverse order.

First, there is the aerial wire of antenna, connected with which are the coils used for adjustment. Next, there is a small instrument called the detector, which does the actual converting of the electrical waves into sound waves. And, finally, comes a pair of telephone receivers, through which the listener hears the sounds.

When a singer or an orchestra at the transmitting station sends sound waves into the transmitter, and the

latter translates them into electric waves, they race to the antenna and generate waves in the air or ether. These waves travel in every direction at the rate of 186,000 miles a second. The distance at which they may be received will depend on the power behind the waves, the land over which they travel, and the receiving set which tries to pick them up. The radio waves from any given broadcasting station thus travel enormous distances almost instantly.

Dr. Blake gave some facts about static disturbances. The host of radio enthusiasts who installed receiving sets in their homes last winter, when atmospheric conditions were at their best, have long before this time, received their first introduction to static electricity. Static dominates the air during the warm summer weather, for it crackles and splutters almost continuously in the phones, at times becoming so strong as to make the reception of radio messages impossible. The weeks of the season now passing into mid-summer have been days and nights of "bad static." Some of the broadcasting stations suspended operations which static held the regal position in the ether. Not only low wave broadcasting stations, but the high powered trans-Atlantic arc stations have been hindered by atmospheric conditions.

The climax for static disturbances has been reached for this year. The strength of the sun's rays and their effect on wireless signals will diminish with each day and by September static will begin appreciably to have lost its strength and long distance radio programs will again be heard clearly. It is possible that before another static gets an opportunity to open another attack upon radio next spring some one will have discovered an effective means of eliminating the electrical disturbances. Some inventions to this purpose already have been announced but their cost thus far practically prohibits them to the amateur.

After giving his lecture Dr. Blake demonstrated a radio concert receiving news announcements broadcasted by Station WEAQ at Ohio State University and WBAV, sent out by the Erner-Hopkins Co., Columbus, and from Station WCX, sent out by the Detroit Free Press.

A number of radio fans examined Dr. Blake's set and had an interview with him after the lecture.

**COLUMBUS CHAMPS
ARE REAL WILD MEN**

**Habit of Throwing Ball Away
Robs Them Of Chance To
Win In Mt. Vernon**

A habit of throwing the ball away on the part of the visiting team destroyed whatever chances they might have had of winning at the local ball yard Sunday afternoon. The score—Mt. Vernon 11, Columbus Giants 4—tells how heavily the colored boys handicapped themselves.

In the field, the colored champions of Columbus did some clever stunts and then spoiled it all by hurling the pellet anywhere but to the place it should have gone. All kinds of circus catches were made by the visitors, who proceeded to make it all for nothing by making tank wild throws.

The fans got plenty of amusement and but little real baseball from the Giants.

For three rounds the game was close, the score at the end of the third standing 1-1. Then the hit blew off with a bang and Mt. Vernon had it sewed up. Three runs in the fourth and one in the fifth gave a safe lead.

When the Giants pulled themselves together and got two runs over the rubber, Mt. Vernon took revenge by driving in four tallies in the sixth. When the visitors scored one in the seventh, we made two in the eighth.

The batting features of the game were a three-base drive by Bickel, and two-sack wallpops by Dancy, Mills and Tillman.

The score:
R. H. E.
Mt. Ver. . . 10 3 1 4 0 2 x—11 11 3
Columbus 1 0 0 0 2 0 1 0 0—4 8 7
Batteries—Blubaugh and Barry;
Tillman and Cardwell.
Struck out—Blubaugh 13, Tillman 6.
Umpire—Porter.

THE EWALT FUNERAL

The funeral of Cassius Ewalt, whose death occurred Saturday, was held at 12 o'clock Monday at the Friendship church, with Rev. A. E. Black officiating. Burial was made in Friendship cemetery.

BIRTHS

A daughter was born Sunday morning at Newark to Mr. and Mrs. Walter Sapp, formerly of Mt. Vernon. Mrs. Sapp was Miss Emily Hamshire of Newark before her marriage.

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